THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 9

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT A. EKELAND and RANDAL M. HILL

Appeal No. 96-1787
Application No. 08/372,482[1]

ON BRIEF

Before CAROFF, GARRIS and WARREN, Administrative Patent Judges.

CAROFF, Administrative Patent Judge.

DECISION ON APPEAL

This decision on appeal relates to the final rejection of claims 1, 2, 4-6, 8-10, 12, 14-15 and 17, all the claims pending in the involved application.

The claims on appeal are directed to methods and associated compositions which involve entrapping a water-

---

[1] Application for patent filed January 13, 1995.

soluble or water-insoluble substance in a vesicle formed from a particular surface active siloxane.

Appellants acknowledge on page 3 of their Brief that the pending claims stand or fall together. Accordingly, we will limit our consideration to illustrative claim 1 which reads as follows:

1. A method of entrapping a water-soluble substance in a vesicle formed from a surface active siloxane comprising forming a mixture by dissolving the water-soluble substance to be entrapped in water, adding a surface active siloxane, and agitating the mixture, the surface active siloxane consisting essentially of tetravalent SiO_2 units and monovalent $R_3SiO_{1/2}$ and $R'R_2SiO_{1/2}$ units, the ratio of monovalent units to tetravalent units being from 0.4/1 to 2/1, and from 40 to 90% of all monovalent units being $R'R_2SiO_{1/2}$ units, wherein R denotes a monovalent hydrocarbon group having up to 8 carbon atoms, and R' denotes a polyoxyalkylene group terminated by a hydroxyl group, an alkyl group, an aryl group, or an acyl group.

The examiner relies upon the following prior art references as evidence of obviousness:

Kanner et al. (Kanner)	3,887,601	Jun. 3, 1975
Hill et al. (Hill)	5,364,633	Nov. 15, 1994
Hill et al. (Hill)	5,411,744	May 2, 1995

All of the appealed claims stand rejected under 35 U.S.C.

§ 103 for obviousness in view of Hill (’633 or ’744) taken in combination with Kanner.[2] With regard to the two alternative Hill references, we find it necessary to refer only to the ’633 patent inasmuch as both Hill patents have the same disclosure, as noted by the examiner.

Upon careful consideration of the entire record in light of the respective positions espoused by appellants and the examiner, we agree with appellants that the examiner has failed to establish a prima facie case of obviousness with regard to the claimed subject matter. Accordingly, we will not sustain the rejection at issue.

The examiner recognizes that the particular type of siloxane surfactant recited in the instant claims differs from that of Hill in that it contains “M” and “Q” siloxane units rather than the “M” and “D” units disclosed by Hill.[3]

---

[2] While Kanner was not specifically mentioned in the final rejection, we view that omission as an apparent oversight for the reasons stated in the examiner’s Answer. We find that the oversight does not prejudice appellants’ case inasmuch as appellants have seen fit to address the Kanner reference in their Brief.

[3] Appellants cite a standard reference work (Noll, Chemistry and Technology of Silicones, 1968) for a definition of the symbols “M,” “D” and “Q.”

However, the examiner fails to provide any evidence or technical explanation to support the bald assertion in the Answer (page 4) that those of ordinary skill in the art would not have expected this difference to have an effect upon surface active properties "since it is the polyether groups (which are the same in both surfactants) that provide the surface active properties."

More to the point, we find no suggestion or guidance in Hill to use siloxane surfactants having tetrafunctional "Q" units. As noted by appellants, the presence of such units would apparently result in significant structural differences ("cross-linked" configurations) over the siloxane molecules of Hill. That, and the fact that Hill suggests there is more to vesicle formation than general surface activity, militate against a reasonable expectation of success in substituting the siloxane surfactants of Kanner for those of Hill. Indeed, Hill clearly suggests that

vesicle formation by particular siloxane surfactants is surprising and unexpected, apart from knowledge of their surface active properties. In this regard, see Hill at column 5, line 61

through column 6, line 11. Based on these teachings, it is evident that the ability of a particular surfactant to form vesicle structures is highly unpredictable; the more so when considering siloxane surfactants of higher complexity than those of Hill, apparently as are those embraced by the instant claims. Thus, at best, it would have been obvious to try substitution of the Kanner surfactant polymers for those of Hill. However, "obvious to try" is not a sufficient basis for establishing a

prima facie case of obviousness. Cf. In re O'Farrell, 853 F.2d 894, 903, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988).

For the foregoing reasons, the decision of the examiner is reversed.

REVERSED

MARC L. CAROFF Administrative Patent Judge	)	
BRADLEY R. GARRIS Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
CHARLES F. WARREN Administrative Patent Judge	)	

Patent Department
Mail C01232
Dow Corning Corporation
Midland, MI 48686-0994